ABSTRACT

A method of analyzing a polynucleotide using matrix assisted laser desorption/ionization mass spectrometry (MALDI-MS) is described. The method includes obtaining the polynucleotide bound to a substrate via a linker moiety having a triaryl methyl linker group. The polynucleotide bound to the substrate is then contacted with a matrix material and analyzed by MALDI-MS. During the MALDI-MS analysis, laser radiation is directed at the matrix material, thereby exciting the matrix material and causing cleavage of the linker moiety. Ions generated as a result of this excitation and cleavage process are then analyzed to provide information about the polynucleotide.